UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

May 20, 2014

Ms. Valerie Nottingham
National Institutes of Health
B13/2S11
9000 Rockville Pike
Bethesda, Maryland 20892

Re: Draft Environmental Impact Statement Proposed 2013 Master Plan National Institutes of Health Bethesda Campus (CEQ #20140079)

Dear Ms. Nottingham:

In accordance with the National Environmental Policy Act (NEPA) of 1969, Section 309 of the Clean Air Act and the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500-1508), the U.S. Environmental Protection Agency has reviewed the Draft Environmental Impact Statement (DEIS) for the 2013 Master Plan National Institutes of Health (NIH) Bethesda Campus in Bethesda, MD.

The NIH Bethesda Campus consists of 310-acres serving as the administrative headquarters for NIH employing approximately 20,000 people. NIH is a component of the U.S. Department of Health and Human Services (HHS); it is comprised of the Office of the Director and twenty-seven (27) Institutes and Centers (ICs).

The purpose of the 2013 Bethesda Campus Master Plan/DEIS is to provide a planning tool that would provide long-term guidance for orderly growth on the campus in support of the NIH mission and goals. This is needed to support NIH's mission as the national center for leading biomedical and clinical research. Master plans produced by NIH have a twenty-year planning horizon, and are to be updated every five years. To date there has been one original NIH Master Plan, approved in 1996, and two updates. The 2013 Bethesda Campus Master Plan is the second twenty-year Master Plan.

The DEIS evaluates three alternatives: the Proposed Action Alternative which aims for incremental growth, using obsolete research buildings to house administrative functions; replacing the unusable to outdated facilities with new facilities; the No Action Alternative; and the Maximum Development Alternative which is a plan for maximum growth to meet currently assigned and future mission requirements projected through 2033. Based on the assessments

contained within this DEIS, NIH has determined that the Preferred Alternative is the Proposed Action Alternative as it achieves NIH goals better than the No Action Alternative and impacts the surrounding community less than the Maximum Development Alternative.

The Proposed Action Alternative consists of converting aged historic and usable existing facilities to administrative or support functions. New construction includes seventeen buildings for research, administrative offices, amenities and other support facilities. Three new parking garages and significant renovations are included. The Proposed Action Alternative would accommodate about 3000 additional employees.

As a result of our review of the DEIS, EPA has concerns with the DEIS in that environmental analysis are still pending or inadequate. As a result, it is not possible to fully assess environmental impacts from the Proposed Action. Areas of specific concern are water resources, transportation and traffic, historic resources, air quality, floodplains, noise, vegetation, fauna and habitat, Environmental Justice communities well as hazardous waste and other materials impacts. A detailed description of these concerns is presented in the Technical Comments (enclosed) for your consideration. EPA rated the DEIS an EC-2 (Environmental Concerns/Insufficient Information), which indicates that we have environmental concerns regarding the proposal and that there is insufficient information in the document to fully assess the environmental impacts of this project. A copy of EPA's rating system is enclosed for your information.

Thank you for the opportunity to review this project. If you have questions regarding these comments, the staff contact for this project is Karen DelGrosso; she can be reached at 215-814-2765.

Sincerely,

Barbara Rudnick
NEPA Team Leader
Office of Environmental Programs

Enclosure (2)

Technical Comments

Proposed Action Alternative (Preferred Alternative)

Page 2-1 states, "This plan is not intended to be a specific design and construction program, but rather a framework within which design and construction can occur for actual projects over the life of the master plan as the programmatic needs upon which the plan is based arise." Since specific design and construction is not part of this plan, it is difficult to fully access environmental impacts. As a result, the FEIS should commit to providing NEPA documentation for those projects where an environmental assessment has not been specifically addressed in this DEIS.

Page 2-15, Table 2-3: Summation Proposed Action – Gross Square Foot Areas of New Construction, Demolition Disturbed Site Area and Renovation, would be more helpful if the column titled "Proposed Action Facility Name & Number" had listed the name of the building (not just the number) to be more easily identifiable. Included should be a description of proposed function, etc. (i.e., Building N14 Research Lab). In addition, page 4-59, Section 4.11.1.1 North Research Cluster, states, "Demolition of Buildings 31A-C is proposed to allow construction of a new biomedical research laboratory and a new multilevel parking structure." Using Table 2-3 as a reference, it is assumed that the new biomedical research laboratory is Building N22 and the proposed parking garage is MLP-N14. It is somewhat confusing in that the existing Building 31A-C will become the new building N22 and the existing Building 22 will become the new Building N18. It would have been very helpful to have a map of the Preferred Alternative (Proposed Action Alternative) that could be corresponded to Table 2-3 with readable building numbers. Please consider for FEIS.

Page ES-5, Table 1: Proposed Development—List of Proposed New Facilities by Alternative, lists Building N21 as the New Institutes and Centers (IC) Headquarters (for both the Proposed Action Alternative and the Maximum Development Alternative). However, the DEIS (page 4-7 and elsewhere) references N21 as the New Administration Building. The New Administrative Buildings referenced in Table 1 are: NF1, NF2, NF3, NF4, NF5. Please explain/correct discrepancy.

As noted on page ES-5, "Table 1 lists the new development and renovation proposed for each action. Following Table 1 is Figure 1, which is a colored illustration of the campus plan showing the campus development with new and remaining existing buildings envisioned by the 2013 Master Plan." A map depicting proposed site development for each alternative is desirable. Figure 1: Development Site Plan Envisioned by 2013 NIH Campus Master Plan is difficult to see the building numbers, distinguish formal open space and walks/plaza/terrace and to determine which alternative the Figure represents.

Vegetation

Page ES-11: Identify and quantify trees lost. Although NIH appears to have a good tree policy (page 3-9, "...no net tree loss and a requirement of a one for one replacement, of trees lost due to either natural causes or construction."), there is no discussion of the potential tree impact that could result from the Proposed Action Alternative. It would seem practical to estimate the potential tree loss that may occur as a result of the Proposed Action Alternative. The EIS should identify and quantify trees on the NIH Campus. As noted on Page 3-10, Table 3-1: Champion Tree Inventory – NIH Bethesda Campus, the five Champion tress on the NIH Campus are identified and specified. However, there is no other information of the vegetation on the NIH Campus. A description of the terrestrial resources on the NIH campus should be provided.

Page 3-9 states, "The campus currently contains about 4.2 acres that meet the Maryland Department of Natural Resources (MDNR) criteria for forests." "This is a recent designation, as the campus contained no forest except a small area around the historic Wilson Estate for many years." Where is the 4.2 acres of forest and the historic Wilson Estate? Without a map that has building numbers and names as well as legends (to include forest areas, etc), it is difficult to have an exact orientation to referenced sites. Will the 4.2 acres of forest remain without impact from the Proposed Action Alternative?

Page 4-4 states, "Any trees or forest areas removed would be replaced and/or mitigated." In addition, "Tree losses would be dependent on the final configurations of the individual proposed projects in the Proposed Action and the Maximum Development Alternative, which would not be defined for years." Without approximate tree loss specified, it is difficult to assess impacts to terrestrial resources. Please provide approximate tree loss for the Preferred Alternative and assess all aspects of environmental impact associated with potential loss.

Page 4-4 states, "Under the Proposed Action there would be about 5 percent net increase of open space creating about fifteen acres of new open space, which includes four acres of new green areas in the perimeter buffers." In addition, "The extent of natural forested areas would increase as the naturalizing process continues in the no-mow areas and the extent of natural areas increase for all three alternatives." Please describe the approximate 15 acres of new open space proposed (i.e. Will trees be planted/will there be mowed areas? Describe no-mow areas.). It is important to note that new green areas should mimic natural processes and promote native species.

Page 4-5 states, "The Child Care may require some tree clearing along the edge the existing wooded area located between Center Drive and Cedar Lane." In addition, "Although the ongoing development calls for the demolition of approximately 60 trees, current NIH tree, forest and vegetation policies remain in place requiring ongoing protection, replacement, and enhancement." It is important to provide specific information of the 60 trees to be lost due to construction (i.e., kind of trees, size of trees, and age of trees) and to discuss replacement of trees

to ensure appropriate mitigation. Some trees may be of a greater ecosystem value; the tree location, type, size, etc is useful in the assessment of mitigation; please discuss in the FEIS.

Page 4-6 states, "NIH has designated areas on campus as Forest Conservation Areas." Please indicate on Figure 3-5: Forest Conservation Plan and Tree Inventory with Champion Tree Locations the designated forest conservation areas and include in the legend.

Fauna and Habitat

Page 3-12 states, "In accordance to the Maryland Department of Natural Resources letter dated September 19, 2012, no records of threatened or endangered species are known to inhabit the area within the bounds of the project site." (Agency correspondence referenced should be included in the FEIS.) However, page 4-88 states, "A review of threatened and endangered species for the project area and campus in coordination with local Maryland agencies is currently in progress. Please clarify. If evaluation and coordination is in progress, assessment of the Proposed Action impact on these resources cannot yet be made. Final review and results is necessary to evaluate impacts of Proposed Action on fauna and habitat. This assessment should be provided in the FIES.

Stormwater Management

According to the DEIS the proposed project will manage the stormwater runoff by implementing NIH Bethesda Institutional Stormwater Management Plan (ISMP), in accordance with Maryland's Storm Water Management Guidelines and the Storm Water Management Act of 2007. Both the guidelines and the Act of 2007 requires that storm water runoff be addressed using Environmental Site Design (ESD) measures. It should be noted that in order for ESD measures to be effective they need to be integrated into building design phase.

Water Quality/Aquatic Habitat

Page 3-16 states, "A TMDL for Nutrients (Phosphorous) is also being developed. The public comment period for this TMDL would end on August 15, 2012." The MDE's website has the TMDL approved on September 30, 2013. The FEIS should be updated to reflect approval.

Page 3-16 states, "A biological assessment of the streams (NIH Stream and Stony Creek) was conducted in April and May 1992 (Wetlands Assessment, Natcher Building Phase II, Booz, Allen, Hamilton and AEP, 1992)." The study indicated that both streams had a sterile benthic structure, that submerged vegetation and algae growth was insufficient to support an aquatic community, and that vertebrates were not found. A 1998 survey of Stony Creek noted an absence of macro invertebrates and fish.

In addition page 3-16 states, "Based upon these assessments NIH has conducted a phased improvement plan for the NIH Stream. The improvement plan included stream bank stabilization in the northernmost campus reach between Rockville Pike and the North Branch. In 2003, NIH completed the second phase of the improvements, which improved the remainder of the NIH stream both biologically and physically. The project goal is to return the stream environment to its natural condition. Work included installation of a bio retention pool planted with indigenous and native species, bank stabilization using natural stones, rocks, and hydrophilic plantings, and control or retardation of flows from storm drain pipe outfalls and drainage ditches." The last biological assessment of the streams was conducted in April and May 1992. Since phased improvements have occurred since then, is there a plan to conduct another biological assessment to evaluate effectiveness of improvements? What is current condition of aquatic habitat in streams?

Page 3-16 states, "The NIH Stream is subjected to NIH power plant process water releases that have an elevated temperature. The releases make up most of the dry weather flow. The banks of the stream are now stabilized by concrete block, rubble, gabions, and riprap. The areas adjacent to both streams are now grass that is mowed to the top of the stream banks or the edge of the stream. Both streams receive over land runoff from impervious areas. All of these factors contribute to a reduction in the natural values of the aquatic habitat." Are additional improvements planned (i.e. buffer around stream edge to control runoff, low impact development, etc.)? With power plant process water releases to increase under the Proposed Action from 300,000 to 560,000 gallon per day (page 4-8), what is the likelihood of improved conditions for aquatic habitat in the NIH Stream? What is planned to control thermal impacts to streams?

Page 3-17 states, "The Stony Creek Point (South Pond) is, as of November 2012 being built by Montgomery County Department of Environmental Protection." It can be assumed that the pond has been constructed. The FEIS should confirm this and/or provide a status of this pond.

Page 4-7 states, "...N21, the New Administration Building, located at the site of existing Building 21, comes in close proximity to the stream channel of the NIH Stream." How close is the NIH Stream to the proposed N21 Building? What are the potential impacts to stream from Building N21? How can design/construction, etc. of the building be such as to avoid potential impacts to the NIH Stream?

Wetlands

Page 3-17 states, "A Wetland delineation of the campus was conducted as part of the on-site investigation of the NIH Stream and Stony Creek (William Natcher Building, Phase II Wetlands Assessment, AEPA, 1993)." The text goes on state, "No wetlands were identified as part of this assessment." The wetland assessment is dated (1993) and the time lapse would

suggest to conduct another more recent wetlands assessment. Please address commitment to conducting a current wetlands assessment.

Page 3-17 states, "The only hydric or normally saturated soil on the campus is the Baile loam in the northeast corner of the site (See Figure 3-6)." Figure 3-6 does not provide a legend, there is no study area boundary indicted to interpret map. There are two areas (green) that could be wetland areas, but no legend to confirm nor a boundary to determine if these areas are inside or outside of the study area. Please include a legend and study area boundary to define Figure 3-6.

Page 4-11 states, "Since no wetlands are present, impacts are not applicable for the Proposed Action, the No Action Alternative or the Maximum Development Alternative." However, Page 5-2 states, "A decrease in overall flow from the campus may affect downstream wetland resources but given the size ratio of NIH to the overall drainage shed, no cumulative impacts are anticipated." Please discuss nearest wetlands and if the Proposed Action could have indirect impacts to wetlands. These wetland resources should be described (include size and function) and distance to NIH.

Groundwater

Page 4-25 states, "There are two large water tanks planned, one is planned for an underground location in the proposed new Central Green area, which is to replace the large impervious asphalt parking lot on the south side of Building 10, directly north of Building 29. The second tank will be an aboveground tank located in MLP 12." Page 4-85 states that the NIH Bethesda campus is considering to install two large underground water storage tanks. Please confirm exact number and location of underground water tanks proposed (2 or 1). The DEIS did not discuss groundwater and whether the proposed underground water tank(s) would impact groundwater. In addition, as stated on page 4-29, two fuel tanks will be to be relocated. "The tanks will need to be located in an underground vault located close to the new vehicle maintenance facility. Again, groundwater impacts were not addressed and the impacts of the underground tanks not assessed. Please discuss.

Page 4-87 states, "Potential impacts to the soils and groundwater at the site may be influenced by the presence of various fuel, chemical, gas and/or radioactive holding tanks at the various project sites." EPA appreciates that soils will be tested after tank removal, but again the DEIS does not address the condition of groundwater on the site and how or if groundwater could be impacted by Proposed Action activity.

The principal aquifers in the region should be identified and described. All wells, both public and private, that could potentially be affected by the Proposed Action must be identified. Areas of groundwater recharge in the vicinity should also be identified and any potential impacts from the Proposed Action examined.

Chesapeake Bay Watershed

If NIH Bethesda campus is within the Chesapeake Bay watershed, then it is required to address adherence to Executive Order 13508 as it relates to the Proposed Action. On May 12, 2009, President Barack Obama signed Executive Order 13508, which recognizes the Chesapeake Bay as a national treasure and calls on the federal government to lead a renewed effort to restore and protect the nation's largest estuary and its watershed. The Executive Order expresses the great challenge facing our renewed efforts to restore the health of the Chesapeake Bay.

To meet the challenge, the Executive Order lays out a series of steps. One of the first key steps requires the federal agencies to define the "next generation of tools and actions to restore water quality in the Chesapeake Bay and describe the changes to be made to regulations, programs, and policies to implement these actions." As required by Section 502 of the Executive Order, this document (1) provides guidance for federal land management in the Chesapeake Bay and (2) describes proven, cost-effective tools and practices that reduce water pollution, including practices that are available for use by federal agencies. Federal agencies in the Chesapeake Bay watershed will find this guidance useful in managing their lands, ranging from the development and redevelopment of federal facilities to managing agricultural, forested, riparian, and other land areas the federal government owns or manages. Please address adherence to Section 502 Guidance which can be accessed at http://executiveorder.chesapeakebay.net.

Floodplains

Page 4-11 states, "In accordance with Executive Order 11988, Floodplain Management, this alternative proposes to construct N21, the New Administration Building, at the site of existing Building 21, which is in close proximity to the stream channel of the NIH Stream. The proposed improvements for this new Administration Building appear to avoid impacts to the NIH Stream floodplain located directly to the west of the proposed building." The EIS should have a map of the floodplain area and the study area. Also, a detailed floodplain study should be conducted as part of site development.

Floodplain encroachments must be evaluated and coordinated with the Federal Emergency Management Agency (FEMA). Federal Executive Order 11988 (Floodplain Management) states, "If an agency has determined to or proposes to, conduct, support, or allow an action to be located in a floodplain, the agency shall consider alternatives to avoid adverse effects and incompatible development in the floodplains." Where no practicable alternatives exist, Executive Order 11988 goes on to state, "If property used by the general public has suffered flood damage or is located in an identified flood hazard area, the responsible agency shall provide on structures, and other places where appropriate, conspicuous delineation of past and probable flood height in order to enhance public awareness and knowledge about floor hazards." To promote public safety, we recommend that at a minimum, a permit condition be included to require conspicuous delineation of past and probably future flood heights at multiple

locations across the project site. These signs should be in place within six months of permit issuance.

Noise

Page 3-48 states, "Building 11 is the top contributor of noise on the south end of the campus. Under all three proposed actions (Proposed Action, No Action Alternative, Maximum Development Alternative), noise from Building 11 (and future Building 34) chillers would increase due to the addition of more equipment. Any additional noise source would add to the total noise. Additional acoustical louvers could be installed properly to minimize the effect of added chillers." What is the noise level at Building 11? How much will the noise increase with future Building 34? Is there a commitment to add acoustical louvers?

Page 3-49 states, "Noise levels for the baseline measurement, were monitored on seven occasions for up to a week at Site A and along the southern NIH property line between 1987 and 1994 (Figure 3-11 above)." Please describe and identify Site A; it is referenced elsewhere in the DEIS but its location/boundaries are not clearly identified. It is important to note that the noise levels for baseline measurements are over 20 years old. Due to increases in population and changes in the area, it would be more practical and relevant to conduct a more recent noise evaluation. Page 3-49 also states, "A study conducted by Colin, Gordon, and Associates (2007) found that noise levels in the neighborhood averaged between 39 and 50 dBA, shown in Table 3-14 below." Define the area of this study. Is this the same area as Site A? It is not clear if a comparison is being made and if the same area is being compared to show difference in baseline/current conditions. Please clarify.

Page 3-45. Table 3-12, Baseline 1993 Leq Traffic Noise Measurements (dBA), is provided, but it would have been helpful to have the current traffic noise measurements for the locations provided in the table for comparison. In addition, Table 3-13, Existing Traffic Leq Noise Levels (dBA) page 3-47 and Table 3-14, Noise Levels in Neighborhood (adapted from Colin Gordon, and Associates, 2007) page 3-50 both do not provide time of noise measurements, etc. to determine peak/rush hour. The FEIS should also project increases from the Proposed Action Alternative and discuss in the context of existing noise.

Transportation, Traffic and Parking

Page 3-117 states, "NIH executed a trilateral memorandum of understanding (MOU) with the National Capital Planning Commission (NCPC) and Maryland-National Capital Park and Planning Commission (M-NCPPC) and implemented a Transportation Management Plan (TMP) on October 4, 1991." Since the MOU was executed in 1991, which is over 20 years ago, is there a plan with the new Proposed Action to address the MOU with NCPC and M-NCPPC to assess new ways to address transportation, traffic and parking as a result of increase in employees/people to area?

Page 4-37 states, "Therefore, all intersections with additional trips from scenario one and the BRAC improvements would operate within the congestion standards." Has NIH coordinated with the MD DOT in the analysis to determine the most accurate assessment of impacts to roads, traffic and transportation as a result of the Proposed Action and in conjunction with cumulative impacts from other projects? Section 5, Cumulative Impacts, does not discuss cumulative impacts to transportation and traffic. Please discuss.

Page 4-41, Section 4.9.1.4 Background Development Impacts, states "Background developments include planned projects or projects currently under construction that are expected to generate trips prior to any NIH expansion. The background development site locations are depicted in Figure 4-4." Figure 4-4 depicts Background Site Location 1, 2, and 3. Please specify where exactly these location are, what they represent, and approximately how much traffic would be generated.

Page ES-13, Neighborhood Parking, provides mitigation measures for neighborhood parking (i.e., employee awareness of neighborhood parking and construction contract restrictions). The DEIS did not discuss how/if the Proposed Action may impact neighborhood parking? Please address.

Page ES-17, "The three alternatives have been developed on the basis of a one parking space per two employees (0.50) parking ratio goal, which is the current NIH standard." "The NCPC Comprehensive Plan lowered the federal employee parking ratio goal for NIH to one space per three employees, or 0.33." How does this discrepancy in parking ratio between NIH and NCPC affect final plans for the Proposed Action? Does an agreement need to be reached?

Cultural Resources

Page 3-121 states, "Building 10 and the Peter Estate and other low historic NIH buildings within the campus have become less visible from Rockville Pike." Explain what is meant by "low historic NIH buildings."

Page 3-136 states, "NIH would consult with the Maryland State Historic Preservation Office (MD SHPO) and, as necessary; the Advisory Council on Historic Preservation (ACHP) before taking any action that may affect cultural resources." Page 3-143 states, that "...the NIH sponsored a cultural resources study in 1997 of all buildings located on the campus over 50 years of age and all buildings that exhibited the likelihood of possessing exceptional significance regardless of age. In this effort, the NIH worked with the Maryland Historical Trust (MHT), which serves as the Maryland SHPO, to determine which resources the NIH campus were eligible for listing in the National Register as individual resources or as contributing resources to a historic district." EPA appreciates the intent to consult with the MHT/SHPO (and ACHP, as necessary); however, at a minimum, it would have been prudent to forward to the MHT/SHPO a copy of the DEIS to afford them the opportunity to comment on the cultural resources section,

etc. The Distribution List did not list the MHT/SHPO. Consultation with the State Historic Preservation Officer throughout the planning process is recommended.

Page 3-139 states, "By 1879, A. Peter had built a summer house called "Winona" on the present site of the Stone House (Figure 5-23)." There is no Figure 5-23 in the DEIS. Please include in FEIS.

Page 3-147 states "Historic resources on the NIH campus are depicted in Exhibit 3-17. These resources include buildings and districts that have been determined eligible for the National Register (including the NIH Historic Core Historic District, the Officer's Quarters Historic District, the George Freeland Peter Estate Historic District, Building 7, Building 15K, Building 38, and Building 60) as well as resources the NIH has determined qualify for listing in the National Register (including Building 29, Building 30, and Building 38A)." Exhibit 3-17 should label the historic districts and building numbers as well as provide an exhibit of the Proposed Action Alternative to have a visual presentation of potential historic resource impacts.

Page 4-49 states, "Visual impact on adjacent residential neighborhoods would be low." Please explain what is meant by low visual impact to adjacent residential neighborhoods. Specify neighborhoods and provide a visual of potential impact.

Page 4-49 states, "The new multi-story Building 14 that replaces a number of existing outdated facilities would enhance views into the campus to the southeast corner." How many stories are proposed for Building 14? Would the multi-story Building 14 have a visual impact on nearby neighborhoods?

Page 4-49 also states, "Several new low-rise buildings are proposed, which replace the existing Building 21 hazardous waste handling functions." Specify how many stories would be considered low-rise. Describe the Proposed Building N21 which is to replace Building 21. Based on the above statement, Building 21 is to be replaced with several new low-rise buildings. How many buildings will replace Building 21 which is referenced as Building N21 in the DEIS?

Page 4-50 states, "Landscaped berms would be part of the design to conceal the replacement hazardous waste facility." It is assumed that the landscaped berms would be built around the Proposed Building N21. Describe the neighboring area that may have a view shed impact from the proposed building(s) replacement.

The paragraph continues with, "Under the Proposed Action, the proposed parking garage would be constructed into the hillside to minimize its perceived height and mass from the NIH Historic Core Historic District. In general terms, Proposed Action would protect the historic setting of Building 6." What is meant by "in general terms" as it relates to protecting the historic setting of Building 6? EPA questions whether the MHT.SHPO would be or is in approval of NIH's assessment. Please discuss.

Page 4-90 lists projects within the Proposed Action that would potentially impact views of the campus. The proposed above ground water tanks were not listed. Please explain why nor or add to the list on page 4-90.

Environmental Justice

The Environmental Justice assessment for this project is inadequate. It lacks the formal Environmental Justice assessment, and the data used to support the assessment. There is brief mention of demographic data, but there are no tables or the actual assessment presented in a form that can be objectively evaluated. The data for each block group for the minority populations should be included in the EIS. In addition, an evaluation of the appropriate benchmark value for the minority population data should also be conducted. If no block group exceeded 50% minority, what was the benchmark selected for the assessment?

The following statement is found near the bottom of page 3-165, "Tract 7048.01 had the highest percentage of its population living below the poverty level at 13 percent. In comparison, the county had 5 percent, while the state had 8 percent living below the poverty threshold." It should be noted that the percent of the population living below the poverty level in census tract 7048.01 is nearly three times the county average, and nearly double the state average. Is this an area of concern? If not, please explain why not.

The assessment indicated that there are no adverse or disproportionate impacts. How can that be determined if there is no clear assessment of areas of potential Environmental Justice concern? There can be no valid conclusions drawn without a meaningful, objective assessment. Please discuss.

Hazardous Waste and Other Materials Impacts

The proposed action requires demolition of a building, Building 21 – a licensed (Resource Conservation Recovery Action (RCRA) facility. The building generated chemical, radioactive and multi-hazard/mixed waste. As a licensed RCRA facility, decommissioning would need to be in accordance with NRC and RCRA procedures. In addition, a new facility is planned and would need to be constructed to RCRA standards and requisite permits obtained. The DEIS states that Building 21 will be decommissioned according to EPA/MDE/NRC requirements and approvals. However, the DEIS does not explicitly recognize that the facility is subject to site wide RCRA Corrective Action (CA), as per Section 3008(u) of RCRA, which governs the investigation and remediation of releases of hazardous waste and/or hazardous releases. The DEIS seems to allude to this obligation in Section 4.15.13 (page 4-84), but it is not explicit. At a minimum, it is suggested that identified hazardous waste and or hazardous constituents releases from all buildings scheduled for demolition, be investigated, and if necessary remediated in accordance with RCRA CA program goals and guidance. Please note that as of the date of this comment letter, there is not an EPA Permit specifying the RCRA CA

obligations for the facility. However, this does not prevent the facility from satisfying its statutory and regulatory obligations.

Pag3 2-3, "The north central portion of the campus is a residential area. Children and adolescents who are long-term patients at the Clinical Center obtain temporary relief from the hospital environment by housing with their families in the Children's Inn on the east side of West Drive. NIH senior staff residences are located to the east of the Children's Inn. The newly constructed Safer Family Lodge also provides temporary housing and support for adult patient's families." The Clinical Center, Children's Inn, Safer Family Lodge should be depicted on a map with reference to the building numbers. It is important to discuss these facilities that house children, adolescents and families who would be sensitive receptors considering they are more vulnerable to risk of exposure to contaminated areas. Please address/discuss the potential risk to these populations from potential exposure to contaminated sites within the FEIS.

Page 3-182 states, "NIH is studying a new location for the two main underground fuel tanks holding approximately 567,000 gallons of No. 2 fuel oil to provide additional stand-off distance and protective berms. The study includes a recommendation for fuel tank redundancy. The impacts will be the same for all the Alternatives." Where is the new location for the two main underground fuel tanks? Please discuss in term of potential environmental impacts and depict on a map.

Page 3-182 states, "Since elemental mercury (liquid metal) is very heavy – about 13.5 times denser than water it rapidly settles in to the bottoms of traps, joints and other low areas of systems where it can reside for very long periods of time. NIH has published protocols for discovery and assessment of mercury contamination for their buildings." Please be more specific – does NIH plan to remove contaminated traps, joints and other areas of the plumbing systems?

Page 4-77 states, "No single method or system for assessment of mercury contamination is appropriate for all situations. NIH has published protocols for discovery and assessment of mercury contamination for their buildings." The NIH published protocol page was not found. Please specify and/or summarize NIH protocols in FEIS.

Page 3-183 and page 4-78 state, "Microbial interactions may increase the environmental toxicity of mercury contaminants released with wastewater and result in other subsidiary hazards. NIH has published protocols for discovery and assessment of mercury contamination for their buildings." What mechanisms are in place to ensure minimize and/or avoid microbial interactions with mercury contaminants in wastewater? Are there separate drains in buildings where contaminated wastewater can be treated and/or disposed of safely?

Page 4-80 states, "For the Master Plan Impacts for all the Alternatives, Ethylene Oxide would only be an impact in the demolition of buildings that contain sterilizers." Specify/quantify the number of buildings to be demolished that contain sterilizers.

Page 4-80 also states, "Laboratories using EtO that have not been evaluated should contact the DOHS, TAB to schedule an evaluation." This sentence seems out of context for the DEIS. It would seem feasible that NIH would have an inventory of its laboratories that use EtO. Please explain.

Page 4-83 states, "A separate NEPA process would be started for decommission, demolition and new construction of the waste management facilities." EPA appreciates that a separate NEPA process will occur for the decommissioning, demolition and new construction of the proposed waste management facilities. Is there a projected site for the new construction of the waste management facilities? Is it Building N19A (Chemical Waste Storage)? Please confirm. EPA is concerned with the exposure pathways, impacted resources, etc. as well as precautionary measures to be in place to protect residential communities that may border the new facility?

Page 3-184 states, "As required under OSHA (29CFR 1926.1101) and EPA (40 CFR 61 subpart m) a survey for asbestos is required prior to renovation/demolition to be conducted in accordance with these regulations. Assessments for other materials including Lead Based Paint (LBP) and Polychlorinated Biphenyls (PCB), heavy metals etc. should also be performed prior to renovation or demolition activity." Although the surveys/assessments for asbestos, LBP and PCB are proposed, it would have been advantageous to have had these assessment done and presented in the DEIS to fully assess environmental impacts. In addition, in regards to asbestos removal, page 4-81 sates, "Adverse impacts would include construction scheduling." Explain impacts that could result from construction scheduling.

Air Quality

Page 5-3 states, "The cumulative air quality will be impacted by proposed development at the Walter Reed National Military Medical Center, Suburban Hospital expansion, current and future large development project in the Central Business District of Bethesda. All of these proposed developments would cause additional traffic and resultant emissions. All of these proposed developments would have added building exhaust emissions. Mitigation measures would need to be considered to offset the cumulative effect of all the proposed development impacts on air quality." Describe monitoring to determine need for mitigation measures, what mitigation measures could be implemented, and who would be responsible for implementing mitigation measures.

Leadership in Energy and Environmental Design (LEED)

The proposed action for NIH is an excellent opportunity to incorporate LEED design into its Master Plan. The LEED Green Building Rating System is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. Members of the U.S.

Green Building Council representing all segments of the building industry developed LEED and continue to contribute to its evolution. LEED standards are currently available for:

- new construction and major renovation projects (LEED-NC)
- existing building operations (LEED-EB, Pilot version)
- commercial interiors projects (LEED-CI, Pilot version)
- core and shell projects (LEED-CS, Pilot version)

LEED was created in order to define "green building" by establishing a common standard of measurement; promote integrated, whole-building design practices; recognize environmental leadership in the building industry; stimulate green competition; raise consumer awareness of green building benefits; and transform the building market.

LEED provides a complete framework for assessing building performance and meeting sustainability goals. Based on well-founded scientific standards, LEED emphasizes state of the art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. LEED recognizes achievements and promotes expertise in green building through a comprehensive system offering project certification, professional accreditation, training and practical resources. For more information, contact the U.S. Green Building Council at the following web address: http://www.usgbc.org/leed.

Miscellaneous

Page ES-20 references Approvals/Actions Required by Other Government Agencies; however, there is no mention of regulatory requirements for NIH. In addition to NEPA, other laws, regulations, permits, and licenses may be applicable to the proposed action. Please provide applicable regulatory requirements and approvals.

Page 2-7 states that Buildings 11 and 34 would be expanded under the No Action Alternative. Please specify size of expansion for the Central Utilities Plant (Buildings 11 and 34) and discuss additional noise. In addition, EPA questions why Table 2-4: No Action Alternative – Current Planned Facility Development Area Summary in Gross Square Feet (GSF), does not include expansion of Buildings 11 and 34 in the table. Please explain.

Low Impact Development (LID)

The proposed action for NIH is an excellent opportunity for low impact development and should be incorporated into site design. Federal agencies are required to reduce the impacts on watershed hydrology and aquatic resources. This effort commonly referred to as low impact development (LID), implements environmentally and economically beneficial landscape practices into landscape programs, policies and practices by using a natural approach to land development and stormwater management. Federal agencies are required by Executive Order

13148 to incorporate the principles put forth in a Guidance dated August 10, 1995. This Guidance is intended to promote principles of "sustainable landscape design and management" which recognizes the interconnection of natural resources, human resources, site design, building design, energy management, water supply, waste prevention, and facility maintenance and operation.

It is important to incorporate LID efforts to mitigate the effects of development through traditional stormwater management practices which have proven to not be entirely successful. Traditional collection and conveyance systems, stormwater ponds and other stormwater facilities do not replicate natural systems, which greatly slow water before it reaches streams, wetlands and other waters. Development often times results in the loss of trees and other vegetation, the compaction of soils by heavy equipment, and the creation of vast stretches of connected impervious areas. These combined factors are extremely difficult to compensate for using traditional practices. As a result, the following site design (goals) and planning practices can be used to minimize stormwater impacts.

Goal: Minimize direct stormwater impacts to streams and wetlands to the maximum extent practicable.

Practices:

1. Locate stormwater facilities outside of streams and wetlands;
2. maintain natural drainage routes on site;
3. preserve riparian buffers; and
4. distribute "Integrated Management Practices" (IMP) used in lieu of centralized ponds.

Goal: Preserve the natural cover on as much of the site as possible, especially for areas located on hydrologic soil groups (HSG) A and B.

Practices:

1. Utilize clustered development designs and preserve a significant portion of the site in a natural state;
2. utilize "fingerprint" clearing by limiting the clearing and grading of forests and native vegetation to the minimum area needed for the construction of the lots, the provision of necessary access, and fire protection;
3. avoid impacts to wetlands to vegetated riparian buffers; and
4. preserve A and B Soils in natural cover.

Goal: Minimize the overall impervious cover.

Practices:

1. Utilize the minimum required width for streets and roads;
2. utilize street layouts that reduce the number of homes per unit length;
3. minimize cul-de-sac diameters, use doughnut cul-de-sacs, or use alternative turnarounds;
4. minimize excess parking space construction, utilize pervious pavers in low-use parking areas;

5. utilize structured or shared parking;
6. reduce home setbacks and frontages;
7. where permitted, minimize sidewalk construction by utilizing sidewalks on one side only, utilizing "Skinny" sidewalks, or substituting sidewalks with pervious trails through common greenspace;
8. substitute pervious surfaces for impervious wherever possible;
9. where permitted, avoid the use of curb and gutter and utilize vegetated open swales, preferably "engineered swales" with a permeable soil base; and
10. minimize compaction of the landscape and in areas where soils will be "disked" prior to seeding, and amended with loam or sand to increase absorption capacity.

Goal: Locate infiltration practices on HSG A and B soils wherever possible. Thus, every effort should be made to utilize areas with these soils for IMP that promote infiltration.

Goal: Locate impervious areas on less permeable soils (HSG C and D). Placement of impervious areas on lower permeability soils minimizes the potential loss of infiltration/recharge capacity on the site.

Goal: "Disconnect" impervious areas. "Disconnecting" means having impervious cover drain to pervious cover (i.e. downspouts draining to the yard, not the driveway). This decreases both the runoff volume and Time of Concentration.

Goal: Increase the travel time of water off of the site (Time of Concentration).
Practices:

1. Flatten grades for stormwater conveyance to the minimum sufficient to allow positive drainage;
2. increase the travel time in vegetated swales by using more circuitous flow routes, rougher vegetation in swales, and check dams; and
3. utilize "engineered" swales in lieu of pipes or hardened channels.

Goal: Utilize soil management/enhancement techniques to increase soil absorption.
Practices:

1. Delineate soils on site for the preservation of infiltration capacity; and
2. require compacted soils in areas receiving sheetflow runoff (such as yards, downslope of downspouts).

Goal: Revegetate all cleared and graded areas.
Goal: Use "engineered swales" for conveyance in lieu of curb and gutter wherever possible.

Goal: Utilize level spreading of flow into natural open space.

For additional and more comprehensive LID information, please refer to the following web sites.

LID Manuals:

- http://www.epa.gov/owow/nps/lid_hydr.pdf
- http://www.epa.gov/owow/nps/lid/lidnatl.pdf
- http://www.bmpdatabase.org
- http://www.epa.gov/ednnrmrl/
- Combined Sewer Overflows Guidance for Monitoring and Modeling Document Type, Published: 1/1/99 http://www.epa.gov/npdes/pubs/chap05-sco.pdf